

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re application of)
Derossett et al.) Group Art Unit:
) 1725
) Examiner:
Application No.: 10/625,783) M. Alexandra Elve
)
Filed: July 23, 2003)
)
For: METHOD AND APPARATUS FOR LASER)
INSCRIPTION OF AN IMAGE ON A SURFACE)

THIRD AMENDED APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 2231301459

Sir:

This is an appeal from the Final Office Action dated March 24, 2006 objecting to the specification and rejecting claims 1-6 of the pending application under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,897,797 (“Drouillard”). Pursuant to 37 C.F.R. § 1.192 and MPEP § 1206, the following brief is submitted, a Notice of Appeal having been filed on June 21, 2006 for the above-identified application on behalf of the inventors, Thomas Derossett, Jr. and Timothy Miller.

TABLE OF CONTENTS

I.	REAL PARTY IN INTEREST	1
II.	RELATED APPEALS AND INTERFERENCES.....	2
III.	STATUS OF CLAIMS	3
IV.	STATUS OF AMENDMENTS	4
V.	SUMMARY OF CLAIMED SUBJECT MATTER	5
VI.	GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL	7
VII.	ARGUMENT	8
A.	OBJECTION TO AMENDMENT TO SPECIFICATION.....	8
B.	REJECTION OF CLAIMS 1-6 UNDER 35 U.S.C. 102(b) OVER U.S. PATENT NO. 5,897,797 (“DROUILLARD ET AL.”)	9
VIII.	CLAIMS APPENDIX.....	11
IX.	EVIDENCE APPENDIX.....	14
X.	RELATED PROCEEDINGS APPENDIX.....	15

I. REAL PARTY IN INTEREST

The real parties in interest are the inventors, Thomas Derossett, Jr. and Timothy Miller.

II. RELATED APPEALS AND INTERFERENCES

Appellants are aware of no pending appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in the present appeal.

This application was the subject of a pre-appeal brief review request, which was filed concurrently with the Notice of Appeal. The decision by the Examiner Panel is included in the Related Proceedings Appendix.

III. STATUS OF CLAIMS

The status of the claims is as follows:

Claims rejected: Claims 1-6.

Claims allowed: None.

Claims withdrawn: None.

Claims objected to: None.

Claims canceled: Claim 7.

Identification of claims that are being appealed: Claims 1 – 6.

IV. STATUS OF AMENDMENTS

There have been no amendments proffered after the Final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This invention relates to an apparatus for the laser etching of indicia on a surface, such as VIN numbers on automobile windows. The invention relates to an emitter/marketing head apparatus 10 (Figs. 1 and 2) where the marking head 14 is affixed to the emitter housing 12 so that the laser beam passes from the laser in the emitter housing 12 to the beam control apparatus in the marking head through a short optical path. Unlike the prior art devices where the marking head and emitter source are spaced apart and require a relatively long optical path, the optical path in the apparatus 10 of the present invention is short. Conventionally, the marking head 14 needs to be relatively freely movable so that indicia can be scribed at various locations on a surface. For this reason, the optical path is flexible to allow a wide range of movement for the marking head. Accordingly, the elongated optical path is conventionally provided by some form of optical fiber or by an articulated arm to provide the necessary flexibility for the marking head. The elongated optical path results in loss of beam intensity as it travels along the path and accordingly requires higher energy to produce a beam of the desired intensity to the site being scribed. Articulated arms have the added disadvantage of requiring a substantial amount of adjustment, especially when replacing a laser, to obtain and maintain a maximum optical path.

Claim 1 recites:

In a system for inscribing a pattern on a surface, the system comprising an emitter housing (Figs. 1-3, element 12; pg. 6, line 17) including a laser for generating a high energy emission beam (pg. 6, line 19), a system controller (Fig. 7, element 70; pg. 9, line 17) for entering data representing the pattern to be inscribed on the surface and for converting said data to control signals (pg. 9, line 2) and beam direction apparatus (pg. 7, line 21) for controllably directing said emission beam responsive to the control signals from said system controller and

power circuitry connecting said laser and said beam direction means to a source of power (pg. 6, line 21), the improvement comprising an emitter/marketing head assembly, said assembly comprising:

an emitter/marketing head assembly (Figs. 1 and 2, element 10; pg. 6. line 16) comprising: an emitter housing defining an interior comprising top, bottom, side and end walls (Figs. 1-3, element 12; pg. 6, line 17), said housing containing a laser source (pg. 6, line 19) for producing a high intensity beam (pg. 6, line 19) disposed in said interior of said emitter housing;

a marking head comprising a housing defined by top, bottom, side and end walls, said walls defining an interior (Figs. 1, 2, and 5, element 14; pg. 6, line 18), said marking head being pivotally joined to a wall of said emitter housing by a pivot joint (Fig. 4, element 15; pg. 7, line 14), said pivot joint including a through running passage (Fig. 4, element 24; pg. 7, line 21) for optical communication between said interior of said emitter housing and said interior of said marking head, said interior of said marking head electronically communicating with said emitter housing and with said system controller, one of said end walls defining an emission face (Figs. 1 and 5, element 16; pg. 8, line 2) of said marking head and having an emission port (Fig. 1, element 60; pg. 9, line 11) for the passage of the high intensity beam there through, said interior of said housing including beam directing apparatus (pg. 5, line 2; pg. 7, line 21) for moving the high energy beam in a defined pattern on a surface being etched responsive to signals from said system controller and said housing further including a lens (Fig. 5, element 42; pg. 8, line 17) for focusing said high intensity beam;

an optical path (Fig. 6, broken line; pg. 7, line21) from said laser source to said emitter port of said marking head being defined by an alignment mirror (Fig. 6, element 24; pg. 7, line

23) in said emission housing, said through-running passage in said pivot joint, said beam directing apparatus and said lens in said marking head; and circuit means electrically connecting said system controller, said marking head and said laser source (Fig. 9, element 44; pg. 9, lines 17 – 26).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The Examiner has objected to the amendment to page 5 of the specification under 35 U.S.C. § 132 as introducing new matter.

B. The Examiner has rejected claims 1-6 as unpatentable under 35 U.S.C. § 102 as being anticipated by Drouillard et al. (US Patent 5,897,797). It is the Examiner's position that Drouillard et al. shows an articulated arm that provides a flexible link between the main cabinet and the remote scanning head. Applicants do not contest this reading of the reference. The issue is how or why this applies to applicants' invention where the object is to eliminate articulated arms and long optical paths.

VII. ARGUMENT

A. OBJECTION TO AMENDMENT TO SPECIFICATION

The Examiner has objected to the amendment to page 5 of the specification under 35 U.S.C. § 132 as introducing new matter.

The amendments to the specification are to make clear that the emitter housing and the marking head of applicants device are directly attached and are operated as a single unit. This is in contrast to the prior art devices in which the emitter housing and consequently the laser source is remotely located with respect to the marking head and are optically in communication through an elongated light path, such as an articulated arm. The direct attachment is illustrated in FIG. 1 and 2. The cylindrical extension forming the pivot joint is an extension of the side wall of the marking head. Since this has been shown from the time the application was filed it cannot be considered new matter to describe the attachment of the emitter housing and marking head as being directly attached as compared to the indirect attachment of the units by an articulated arm or similar device made necessary by the remote location of the units with respect to one another as taught by the prior art.

Accordingly, it is submitted that the Examiner's objection to the amendments proposed to the specification is without basis and should be withdrawn.

B. REJECTION OF CLAIMS 1-6 UNDER 35 U.S.C. 102(b) OVER U.S.

PATENT NO. 5,897,797 (“DROUILLARD ET AL.”)

The Examiner rejected claims 1-6 as unpatentable under 35 U.S.C. § 102 as being anticipated by Drouillard et al. (US Patent 5,897,797). With respect to this rejection of claims 1-6, it is applicants’ intention that the claims stand or fall together.

Drouilliard et al. discloses a laser marking device in which the emitter (laser) is remote from the marking head. An articulated arm interconnects the remote emitter to the marking head. The two units are not directly pivotally attached. The articulated arm provides an elongated optical path with the attendant deficiencies associated with articulated arms, especially the need for constant adjustment to maintain the optical path.

Because there is no teaching of the direct attachment of the emitter housing and marking head, Drouillard et al. does not provide the elements of applicants’ etching apparatus arranged as claimed by applicants. To properly constitute an anticipatory reference, the reference must teach the elements arranged as in the claims. *Lindermann Maschinenfabrik GmbH v. American Hoist and Derrick Company*, 730 F. 2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984). Thus, even if the reference contains the same elements, it does not anticipate if they are not arranged as claimed.

By directly attaching the emitter housing in which the laser source is located to the marking head, the device of the present invention provides an improved laser marking system with a short optical path that requires no adjustment once the units are directly attached to one another. The advantages of the short optical path, the elimination of the articulated arm of Drouillard et al., and the relative ease in replacing the marking head as required provide substantial savings

It is thus submitted that the rejection under 35 U.S.C. § 102 (b) as anticipated by Drouillard et al. is not supported in fact or in law and should be overturned.

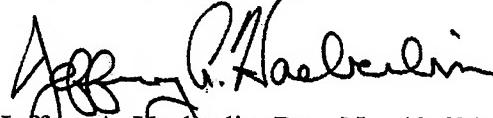
* * * * *

In conclusion, in view of the foregoing, it is submitted that the objection to the amendments to the specification do not constitute new matter and are entitled to be entered in the file of this application. The rejection of the claims is improper as the reference relied upon fails to anticipate the invention.

It is respectfully requested that the board reverse the Examiner rejection of the claims and order the amendments to the specification be entered.

Amended: September 04, 2007

Respectfully submitted,



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VIII. CLAIMS APPENDIX

The claims that follow are claims pending in the application and contain amendments made on January 5, 2006.

1. In a system for inscribing a pattern on a surface, said system comprising an emitter housing including a laser for generating a high energy emission beam, a system controller for entering data representing the pattern to be inscribed on the surface and for converting said data to control signals and beam direction apparatus for controllably directing said emission beam responsive to the control signals from said system controller and power circuitry connecting said laser and said beam direction means to a source of power, the improvement comprising an emitter/marketing head assembly, said assembly comprising :

an emitter housing defining an interior comprising top, bottom, side and end walls, said housing containing a laser source for producing a high intensity beam disposed in said interior of said emitter housing;

a marking head comprising a housing defined by top, bottom, side and end walls, said walls defining an interior, said marking head being pivotally joined to a wall of said emitter housing by a pivot joint, said pivot joint including a through running passage for optical communication between said interior of said emitter housing and said interior of said marking head, said interior of said marking head electronically communicating with said emitter housing and with said system controller, one of said end walls defining an emission face of said marking head and having an emission port for the passage of the high intensity beam there through, said interior of said housing including beam directing apparatus for moving the high energy beam in a defined pattern on a surface being etched responsive to signals from said system controller and said housing further including a lens for focusing said high intensity beam;

an optical path from said laser source to said emitter port of said marking head being defined by an alignment mirror in said emission housing, said through-running passage in said pivot joint, said beam directing apparatus and said lens in said marking head; circuit means electrically connecting said system controller, said marking head and said laser source.

2. The system of claim 1 wherein said pivot joint comprises a cylindrical extension from a wall of said housing of said marking head, said cylindrical extension is journaled in a corresponding opening a wall of said emitter housing , a through running passage in said cylindrical extension is aligned with a corresponding passage in said wall of said marking head to define a portion of said optical path for said high intensity beam to traverse from said emitter housing to said beam directing apparatus of said marking head.
3. The system of claim 1 wherein said marking head is pivotally mounted on a sidewall of said emitter housing.
4. The system of claim 1 wherein a portion of one side wall of said emitter housing adjacent said front wall defines a mounting face that is biased forwardly inwardly with respect to the longitudinal axis of said emitter housing and said marking head is pivotally mounted thereon.
5. The system of claim 1 wherein said emission face further includes a pair of interlocks, each of which include a spring loaded pin to break the circuit to the laser and prevent the laser from firing unless the pins are fully retracted.

6. The system of claim 1 including a pair of suction cups carried on said emission face said marking head, a suction chamber in said marking head communicating with said suction cups and with a vacuum line for reducing pressure in said suction chamber for drawing the emission face against the surface being etched.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

The decision of the Examiner's Panel is attached. There are no pending appeals or interferences or pending actions or decisions before the Board or any court of which applicants are aware that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the present appeal.

Application Number. 	Application/Control No.	Applicant(s)/Patent under Reexamination
	10/625,783 Elve	DEROSSETT ET AL. Art Unit 1725
Document Code - AP.PRE.DEC		

Notice of Panel Decision from Pre-Appeal Brief Review



This is in response to the Pre-Appeal Brief Request for Review filed 6/21/06.

1. **Improper Request** – The Request is improper and a conference will not be held for the following reason(s):

- The Notice of Appeal has not been filed concurrent with the Pre-Appeal Brief Request.
- The request does not include reasons why a review is appropriate.
- A proposed amendment is included with the Pre-Appeal Brief request.
- Other: _____

The time period for filing a response continues to run from the receipt date of the Notice of Appeal or from the mail date of the last Office communication, if no Notice of Appeal has been received.

2. **Proceed to Board of Patent Appeals and Interferences** – A Pre-Appeal Brief conference has been held. The application remains under appeal because there is at least one actual issue for appeal. Applicant is required to submit an appeal brief in accordance with 37 CFR 41.37. The time period for filing an appeal brief will be reset to be one month from mailing this decision, or the balance of the two-month time period running from the receipt of the notice of appeal, whichever is greater. Further, the time period for filing of the appeal brief is extendible under 37 CFR 1.136 based upon the mail date of this decision or the receipt date of the notice of appeal, as applicable.

- The panel has determined the status of the claim(s) is as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-6

Claim(s) withdrawn from consideration: _____

3. **Allowable application** – A conference has been held. The rejection is withdrawn and a Notice of Allowance will be mailed. Prosecution on the merits remains closed. No further action is required by applicant at this time.

4. **Reopen Prosecution** – A conference has been held. The rejection is withdrawn and a new Office action will be mailed. No further action is required by applicant at this time.

All participants:

(1) M. Alexandra Elve 

(3) William Krynski 

(2) Patrick Ryan 

(4) _____